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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,224	08/27/2003	Masaki Sano	03151	4309
23338	7590	02/07/2005	EXAMINER	
DENNISON, SCHULTZ, DOUGHERTY & MACDONALD 1727 KING STREET SUITE 105 ALEXANDRIA, VA 22314			MONDT, JOHANNES P.	
			ART UNIT	PAPER NUMBER
			2826	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/648,224

Applicant(s)

SANO, MASAKI

Examiner

Johannes P Mondt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Amendment*

Amendment filed November 23, 2004 forms the basis of this office action. In said Amendment Applicant cancelled claims 5 and 6 without prejudice or disclaimer of the subject matter thereof and substantially amended all remaining claims 1-4 through substantial amendment of independent claim 1 and through substantial amendment of the dependent claim limitations of claims 2 and 3. Comments on "Remarks" made in said Amendment are included below under "Response to Arguments".

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by Reeh et al (WO 97/50132). Reeh et al teach (title, abstract, page 6, page 16, line 19 – page 17, line 26) a chromaticity-corrected LED (cf. especially page 6, lines 4-35) comprising: an LED 1 (Figure 1) mounted on a substrate 18 (Figure 9); transparent resin 5 sealing the LED (page 17, lines 19-26), the transparent resin including phosphor particles (page 17, line 26) distributed therein for changing chromaticity of light emitted from the LED (page 16, lines 19-25 and page 17, lines 19-26) to a desired chromaticity (e.g., white light: see

page 17, lines 19-26) , based on an expected chromaticity of the light emitted from the LED (loc.cit.); and a dye dyeing at least a portion of the sealing resin for correcting the chromaticity of the light emitted from the LED (page 6, lines 4-35; note that this dye or these dyes do not effect wavelength conversion and are thus distinct from the aforementioned phosphor: loc.cit.) for correcting the chromaticity of the light emitted from the LED (particularly: page 6, lines 18-35), and based upon an actual chromaticity of the light emitted from the LED (loc.cit.). *In conclusion, Reeh et al anticipate claim 1.*

Parenthetically, it is noted that the limitations “based upon an expected chromaticity of the light emitted from the LED” and “based upon an actual chromaticity of the light emitted from the LED” are limitations of purpose or function. Applicant is reminded that in reference to the claim language referring to “based upon an expected chromaticity” and “based upon an actual chromaticity” intended use and other types of functional language must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

*On claim 2:* the dye by Reeh (page 6, line 30) has a chromaticity that corrects the chromaticity of the light from the LED, which thereby acquires a desired color of light (page 6, lines 4-34). Parenthetically, in reference to the claim language referring to “for correcting the chromaticity of the light from the LED to acquiring a desired color of light”, intended use and other types of functional language must result in a structural

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difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963).

*On claim 4:* at least a surface of the sealing resin 5 is dyed by the dye, because the dye is added to the epoxy resin 5 extending in distribution to its own surface (Figure 1).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. ***Claim 3*** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reeh et al (WO 97/50132). As detailed above, Reeh et al anticipate claim 1. Reeh et al do not necessarily *specifically* teach the further limitation as defined by claim 3. *However, Reeh et al do teach that the purpose of the one or more dyes* (page 6, line 30) is to adjust the color of the light resulting from the LED device. *Implicit* to the very possibility to “adjust” is the capability to either diminish or enhance the relative contribution of the light emitted by the light emitting diode. Because said dyes have no light emission capability (loc.cit.) the only possibility to diminish said relative contribution is to *absorb*

light emitted from the light emitting diode. Therefore, it would have been obvious to include the teaching of claim 3 in the invention by Reeh et al.

### ***Response to Arguments***

4. Applicant's arguments filed 11/23/2004 have been fully considered but they are not persuasive. In particular, while Applicant substantially amended all pending claims 1-4 prior art has been found over which, regrettably, the substantially amended claims must be rejected. In response to Applicant's allegation that Reeh et al (US 2001/0000622) "does not cure the defects of Roberts et al and Kurokawa et al, in that it does not disclose or suggest utilizing a dye to correct chromaticity as actually measured as a product of the specific LED and the phosphors in the encapsulant" examiner respectfully disagrees. In support of examiner's position please see section [0027] in Reeh et al and to the comments on functional language made here and in the first office action on the merits.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Reeh et al (USPAT 6,812,500 B2), and

Reeh et al (US Patent Application published as US 2001/0000622 and made of record in the first office action on the merit and therefore not repeated on Form PTO-892):

both documents could if necessary be consulted with regard to the German language PCT publication by Reeh et al (WO 97/50132) as cited above, belonging to the same patent family.

6. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P Mondt whose telephone number is 571-272-1919. The examiner can normally be reached on 8:00 - 18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
January 30, 2005



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